

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION (PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
(Box PCT)
Crystal Plaza 2
Washington, DC 20231
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 22 February 1999 (22.02.99)	Applicant's or agent's file reference 5722-2P-1
International application No. PCT/US98/13093	Priority date (day/month/year) 25 June 1997 (25.06.97)
International filing date (day/month/year) 24 June 1998 (24.06.98)	
<p>Applicant BLACK, Charles, Allen, Jr.</p>	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

08 January 1999 (08.01.99)

in a notice effecting later election filed with the International Bureau on:

2. The election was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Jean-Marie McAdams
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

09/446402

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

REC'D	12 APR 1999
WIPO	PCT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 5722-2-1	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US98/13093	International filing date (day/month/year) 24 JUNE 1998	Priority date (day/month/year) 25 JUNE 1997
International Patent Classification (IPC) or national classification and IPC IPC(6): C07H 21/02; C12N 5/10, 15/87 and US Cl.: 435/69.1, 375; 536/24.5, 25.2		
Applicant BLACK, CHARLES ALLEN, JR.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.
3. This report contains indications relating to the following items:
 - I Basis of the report
 - II Priority
 - III Non-establishment of report with regard to novelty, inventive step or industrial applicability
 - IV Lack of unity of invention
 - V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI Certain documents cited
 - VII Certain defects in the international application
 - VIII Certain observations on the international application

Date of submission of the demand 08 JANUARY 1999	Date of completion of this report 25 MARCH 1999
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer THOMAS G. LARSON, PH.D. Telephone No. (703) 308-0196 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US98/13093

I. Basis of the report

1. This report has been drawn on the basis of (Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments):

 the international application as originally filed. the description, pages 1-29, as originally filed.pages NONE, filed with the demand.pages NONE, filed with the letter of _____.pages , filed with the letter of _____. the claims, Nos. 1-15, as originally filed.Nos. NONE, as amended under Article 19.Nos. NONE, filed with the demand.Nos. NONE, filed with the letter of _____.Nos. , filed with the letter of _____. the drawings, sheets/fig 1-8, as originally filed.sheets/fig NONE, filed with the demand.sheets/fig NONE, filed with the letter of _____.sheets/fig , filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

 the description, pages NONE. the claims, Nos. NONE. the drawings, sheets/fig NONE.

3. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the ~~Supplemental Box~~ Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US98/13093

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. STATEMENT**

Novelty (N)	Claims <u>1-15</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-15</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-15</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-15 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a masked expression cassette producing an antisense molecule that inhibits expression by the cassette in the absence of a target molecule.

----- NEW CITATIONS -----
NONE

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : C07H 21/02, C12N 5/10, 15/87		A1	(11) International Publication Number: WO 98/58944 (43) International Publication Date: 30 December 1998 (30.12.98)
(21) International Application Number: PCT/US98/13093		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 24 June 1998 (24.06.98)			
(30) Priority Data: 60/050,772 25 June 1997 (25.06.97) US			
(71)(72) Applicant and Inventor: BLACK, Charles, Allen, Jr. [US/US]; 1139 Judy Ann Place, Pittsburgh, PA 15237 (US).			
(74) Agents: SPRUILL, W., Murray et al.; Alston & Bird, LLP, 1211 East Morehead, P.O. Box 34009, Charlotte, NC 28234-4009 (US).		Published <i>With international search report.</i>	

(54) Title: COMPOSITIONS AND METHODS FOR ACTIVATING GENES OF INTEREST

(57) Abstract

Compositions and methods for activating genes of interest are provided. The compositions comprise a masked targeted expression cassette which expresses a gene product only in the presence of a target molecule. The cassettes are useful for the treatment of disease and for preventing the proliferation of neoplastic cells.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US98/13093

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :C07H 21/02; C12N 5/10, 15/87

US CL :435/69.1, 375; 536/24.5, 25.2

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/69.1, 91.3, 91.4, 172.3, 320.1, 375; 514/44; 536/23.1, 24.5, 25.2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, STN (Biosis, Cplus, LifeSci, Inpadoc, Medline, WPIDS).

Search terms: expression cassette, antisense, cap, translation initiation, toxin, Charles Allen Black.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	HIRASHIMA et al. Engineering of the mRNA-Interfering complementary RNA Immune System Against Viral Infection. Proceedings of the National Academy of Sciences, USA. October 1986, Vol. 83, pages 7726-7730, see abstract.	1-15
A	COLEMAN et al. The Use of RNAs Complementary to Specific mRNAs to Regulate the Expression of Individual Bacterial Genes. Cell. June 1984, Vol. 37, pages 429-435, see abstract.	1-15

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance		
E earlier document published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
O document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
P document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

10 SEPTEMBER 1998

Date of mailing of the international search report

14 OCT 1998

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

THOMAS G. LARSON, PH.D.

Telephone No. (703) 308-0196

